

ABSTRACT

A circuit breaker includes separable contacts, a latchable operating mechanism having a latch member, a bimetal and an arc fault trip assembly. The trip assembly includes a thermistor responsive to bimetal temperature, an amplifier having first and second inputs and an output, a first resistor electrically connected between a second bimetal terminal and the first amplifier input, a second resistor electrically connected in parallel with the thermistor, a third resistor electrically connected in series with that parallel combination, with that series combination being electrically connected between the first amplifier input and the amplifier output. The second amplifier input is referenced to the first bimetal terminal. The amplifier output has a voltage, which is compensated for the bimetal temperature coefficient. The trip assembly provides a trip signal as a function of compensated voltage. A solenoid responds to the trip signal and releases the latch member to trip the separable contacts open.